









Work Order ID 66702


Thursday, February 24, 2011 10:14:22 AM

Page 1

Item ID: D2894-1	Accept		Setup Start	
Revision ID: 1			Stop	
Item Name: 2.750 Support				
Start Date: 3/25/2011	Start Qty: 6.00		Cust Item ID:	
Required Date: 3/25/2011	Req'd Qty: 6.00		Customer:	
Reference:				


Approvals:	Process Plan: 	Date: 3-22-24	Tooling:	Date:	Run Start	
	QC:	Date:	SPC (Y/N):	Date:	Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2894	Rev D								

100		0.00							
	HAAS CNC VERTICAL MACHINING #1								
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	Machine as per Folio FA253 Tumble & Deburr								


am 11/03/08

6 0

110		0.00							
	QC1- Inspect dimensions to dimension sheet								
QC	Memo	0.00							
Quality Control									

am 11/03/08

6 0

120		0.00							
	QC8- Inspect parts - second check								
QC	Memo	0.00							
Quality Control									

B.A 11/03/08

6 0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2694-1 PAR #: _____ Fault Category: machining NCR: Yes No DQA: ✓ Date: 11/03/08
 Resolution: 102 Accepted Disposition: use as is QA: N/C Closed: ✓ Date: 11/03/29

NCR: <u>66702</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
11/03/04	100	CHAMFER IS 0.080" INSTEAD OF 0.160"	CP	Acceptable.	✓	✓	CP	✓
			11.03.04	Fits in ROCKER			11.03.04	11.03.08
			Q51042	BEAM			Q51042	
11/03/07	100	2 parts, .030x60° chamfer are .040°x60° R.L. operator error forget to run the chamfer prog.	CP	OK.	✓	✓	CP	✓
			11.03.08	Run chamfer operation to finish part.	11/03/08	11/03/09	11.03.08	11.03.08
			Q51042				Q51042	

NOTE: Date & initial all entries

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Page 2

Item ID: D2894-1

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Setup Start



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Start Date: 3/25/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 3/25/2011 Req'd Qty: 6.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	HandFinishing	0.00							
 HandFinish	Hand Finishing								
	Memo	0.00							
	Mask primed area and 0.500" hole prior to paint as per dwg D2894								
140	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
 Powdercoat	Powder Coating								
	Memo	0.00							
	START TIME								
	FINISH TIME:								
	OVEN TEMPERATURE:								
150	QC3- Inspect Part Finish	0.00							
 QC	Quality Control								
	Memo	0.00							

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

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Page 3

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Setup Start



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Start Date: 3/25/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 3/25/2011 Req'd Qty: 6.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

160

0.00



SprayPaint

SprayPaint

Memo

0.00

Spray Painting

HAND FINISHING RESOURCE #1 Mask and prime inside surface as per dwg
D2894 per Dart QSI 005 4.2

ET 11-03-28 (x6)

170

0.00



QC14- Inspect Spray Paint

QC

Memo

0.00

Quality Control

8 w/3/29

(x6)

180

0.00



Identify as per dwg & Stock Location: *xtwe*

assy

0.00

Packaging

Memo

Packaging

ET 11 03 29 (x6)

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

CK 11/03/29

MF
11-03-29

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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Thursday, February 24, 2011 10:14:27 AM

Page 1

Work Order ID: 66702



Parent Item: D2894-1

Parent Item Name: 2.750 Support

Start Date: 3/25/2011

Required Date: 3/25/2011

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP: B02.11.26 Added mask hole KJ
IPP Rev:C ECN 993 07-11-07 DD verified by:EC
IPP D 08.03.19 Re-format EC verified by DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
DSK079 		Manufactured	No				Each	10.0000		3			
D2894-1 TURNING DETAIL													

Location

Loc Qty

Loc Code

MAT

10

43976

10

3 *inf 11/03/04*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	44702
Description: Ø2.750 Support		Part Number:	D2894-1
Inspection Dwg: D2894	Rev: D	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.454	0.474	Vern HL-7	.460	.455	.461	.461	.456
AB	3.062	3.082	"	3.071	3.070	3.070	3.070	3.070
AC	0.053	0.073	Rad gage	.063	.063	.063	.063	.063
AD	1.766	1.786	Vern HL-7	1.784	1.785	1.784	1.784	1.782
AE	0.020	0.040	"	.093 *	.093 *	.020	.020	.020
AF	0.260	0.267	Vern HL-7	.262	.262	.262	.262	.262
AG	0.170	0.190	"	.186	.190	.178	.178	.179
AH	0.150	0.170	"	.154	.153	.156	.152	.166
AI	1.990	2.010	High gage 31006	2.000	2.005	2.000	2.003	2.006
AJ	0.240	0.260	Rad - gage	.250	.250	.250	.250	.250
AK	1.880	1.900	High gage 31006	1.894	1.890	1.890	1.897	1.890
AL	0.500	0.505	Vern HL-7	.502	.502	.501	.501	.501
AM	0.188	0.194	"	.191	.191	.191	.191	.191
Ensure that Ø0.500" bore is perpendicular to 1.389" bore within 0.003"								
Accept/Reject								

Measured by:	<i>[Signature]</i>	Date:	11/03/07
Audited by:	B.A	Date:	11/03/08
Prototype Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	06.03.08	DT8708 added to dimension AM	KJ/JLM	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	08.04.22	Reformat; Dwg Rev updated	KJ/DD	
E	08.11.25	Dimensions updated per Dwg Rev. D	KJ/JLM	
F	09.05.04	Dimension AN (0.926) removed	KJ/JLM	<i>[Signature]</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 116702
Description: Ø2.750 Support		Part Number: D2894-1
Inspection Dwg: D2894	Rev: D	Page 1 of 1

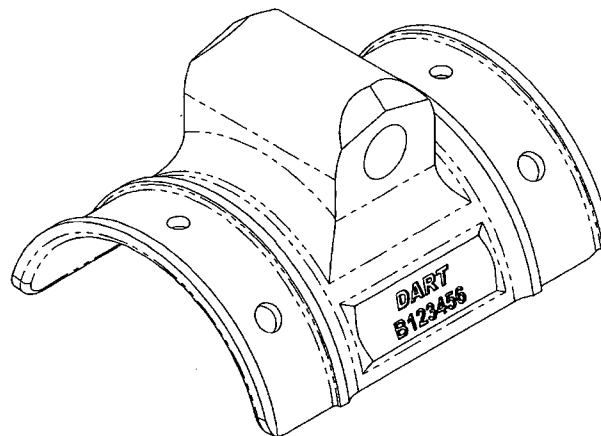
FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
HAAS Section								
AA	0.454	0.474		.459				
AB	3.062	3.082		3.071				
AC	0.053	0.073		.063				
AD	1.766	1.786		1.784				
AE	0.020	0.040		.020				
AF	0.260	0.267		.261				
AG	0.170	0.190		.187				
AH	0.150	0.170		.158				
AI	1.990	2.010		1.998				
AJ	0.240	0.260		.250				
AK	1.880	1.900		1.888				
AL	0.500	0.505		.501				
AM	0.188	0.194		.191				
Ensure that Ø0.500" bore is perpendicular to 1.389" bore within 0.003"								
Accept/Reject								

Measured by: <i>Amk</i>	Date: 11/03/08
Audited by: <i>H.A</i>	Date: 11/03/08
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	06.03.08	DT8708 added to dimension AM	KJ/JLM	
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D	08.04.22	Reformat; Dwg Rev updated	KJ/DD	
E	08.11.25	Dimensions updated per Dwg Rev. D	KJ/JLM	
F	09.05.04	Dimension AN (0.926) removed	KJ/JLM	



D2894-1 Ø2.750 SUPPORT

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER NO. 66702

PL11-02-24

RELEASED
8/11/19

NOTES:

- 1) MATERIAL: 17-4 PH STAINLESS STEEL
HEAT TREAT TO H900 CONDITION
(900°F FOR 1 HR, AIR COOL)
MIN UTS = 170 KSI (38 HRC)
- 2) FINISH: PRIME INSIDE SURFACE AS SHOWN PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
- 6) 0.50" WIDE x 1.56" LONG x 0.005" MIN HEIGHT FLAT,
WITH R0.25 RADIUS OF TRANSITION IN THIS AREA.
IDENTIFY WITH DART LOGO AND PART NUMBER ON ONE
SIDE AND DART LOGO AND BATCH NUMBER ON OPPOSITE
SIDE USING 0.010-0.020 DEEP LETTERING
- 7) WEIGHT: 0.98 lbs



D	DRAWING REFORMATTED. POWDER COAT FINISH REMOVED. CHAMFERS ADDED TO TOP OF PART TO CLEAR ROCKER BEAM. PER BELL TECH BULLETIN 407-08-84. B5-2 0.261 HOLE WAS 0.257. B2-2 REAM FINISH INSTRUCTION ADDED.	AJS	08.11.06
C	ADD MASKING AND PRIME ONLY NOTES, REFORMATTED DRAWING.	DC	07.07.04
B	AS MANUFACTURED	CP	02.07.17
A	NEW ISSUE	CP	02.04.02
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. D
MFG. APPR.	<i>[Signature]</i>	D2894	SHEET 1 OF 2
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	Ø2.750 SUPPORT	NTS
DATE	08.11.06	<small>COPYRIGHT © 2002 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

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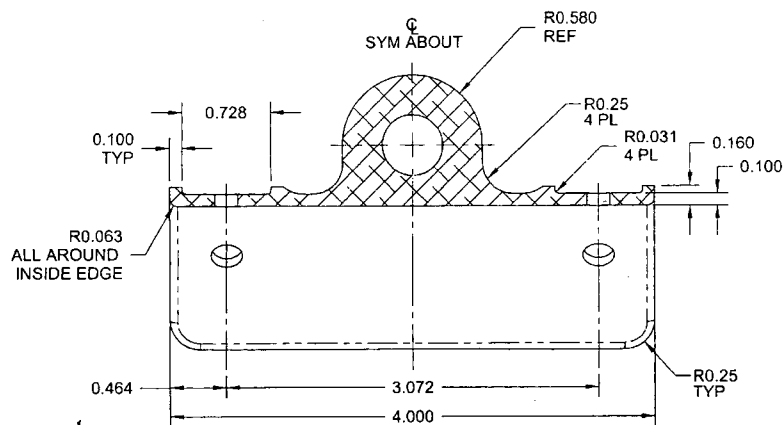
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

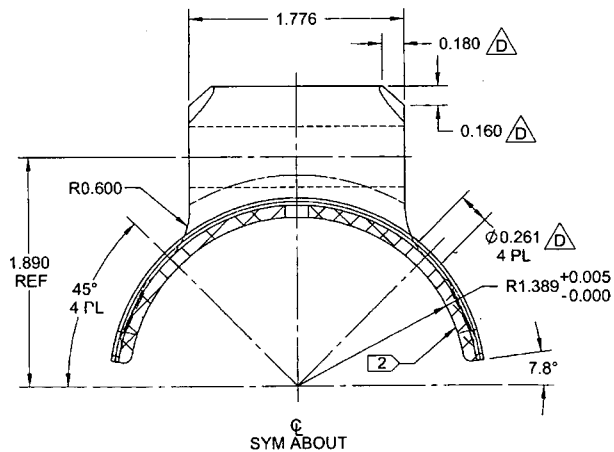
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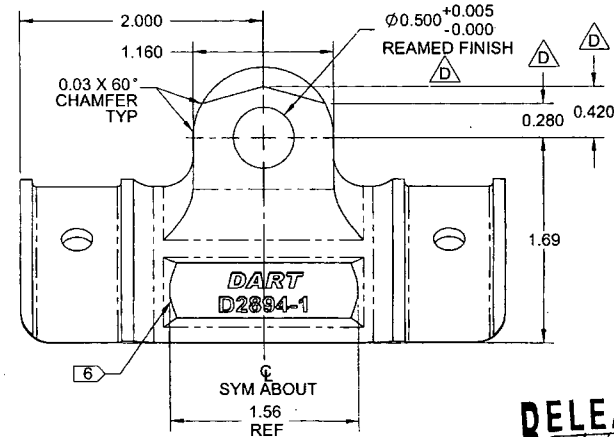
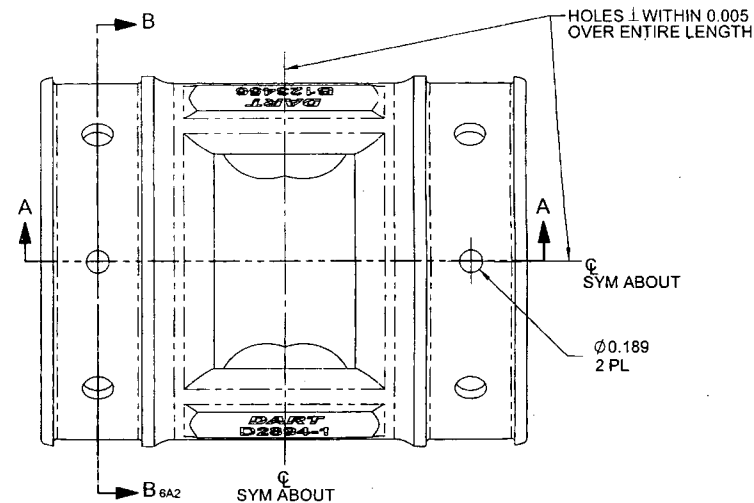
8 7 6 5 4 3 2 1



SECTION A-A



SECTION B-B C3-2
(VIEW ROTATED 90°)



D2894-1 Ø2.750 SUPPORT

RELEASED
28/11/19

w/o 46702

DESIGN	DS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D2894	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		Ø2.750 SUPPORT	NTS
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8 7 6 5 4 3 2 1

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